








dc 96 000439  
(cont.)


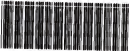

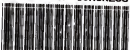
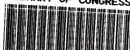



X Collection

INDEX

Page: 1

Barcode Number	Box Number	Total of Volumes	Call Number
LIBRARY OF CONGRESS  0 029 767 417 1	1949A	71	TH 9237.U5 no. 1-71 (1937-59)
LIBRARY OF CONGRESS  0 029 767 418 3	1949B	92	TH 9237.U5 no. 72-130 (1960-67)
LIBRARY OF CONGRESS  0 029 767 419 5	1949C- 1950 <b>1 BOX</b>	31 10	TH 9237.U5 no. 131 TH 9504.K2
LIBRARY OF CONGRESS  0 029 767 420 1	1951 <b>1 BOX</b>	10	TJT. AG (1952-53)
	1952	8	TJT. I5 - TJ 4. I51
LIBRARY OF CONGRESS  0 029 767 421 3	1953	61	TJ5. W6 no. 1-61 (1936-56)
LIBRARY OF CONGRESS  0 029 767 422 5	1954	3	TJ 130.A2 no. 1-3 (1896-1936)
LIBRARY OF CONGRESS  0 029 767 423 7	1955 <b>1 BOX</b>	2	TJ 130.B6 no. 1 in overage box TJ 130.S61
	1956A	3	TJ 130.W2 no. 1-3


X CollectionINDEXPage: 2

Barcode Number	Box Number	Total of Volumes	Call Number
LIBRARY OF CONGRESS  0 029 767 424 9	1956B <b>1 BOX</b>	1	TJ130.W2 (1892-1942)
LIBRARY OF CONGRESS  0 029 767 425 0	1957	5	TK146- TK161
LIBRARY OF CONGRESS  0 029 767 426 2	1958	14	TJ170 no.1-14 (1951- Undated)
LIBRARY OF CONGRESS  0 029 767 427 4	1959 <b>1 BOX</b>	10	TJ170 no.1-10 (1958-60)
LIBRARY OF CONGRESS  0 029 767 428 6	1960	3	TJ181.5 no.1-3 (1938-49)
LIBRARY OF CONGRESS  0 029 767 429 8	1961	13	TJ185- TJ533 no.5,7-10 in over- size box
LIBRARY OF CONGRESS  0 029 767 429 8	1962	11	TJ563- TJ735
LIBRARY OF CONGRESS  0 029 767 429 8	1963	11	TJ900- TJ1160

X Collection

INDEX

Page: 3

Barcode Number LIBRARY OF CONGRESS  0 029 767 430 4	Box Number	Total of Volumes	Call Number
	1964	2	TJ1175.P2 no. 1-2
	<del>2011</del>	<del>35</del>	<del>1500-</del> <del>TJ1175.V1</del>

\*

~~\* 11/15/11 11/15/11 11/15/11~~

X-TJ 1  
I5

Subject to revision

X-TJ 1. I5 #1

# The Institution of Mechanical Engineers



## THE DYNAMIC YIELD STRENGTH OF STEEL AT AN INTERMEDIATE RATE OF LOADING

By A. F. C. Brown, B.Sc. (Eng.), A.M.I.Mech.E., and R. Edmonds

*Paper read at an Extra General Meeting of the Institution,  
in conjunction with the Applied Mechanics Group, in  
London, on Friday, 11th April 1947, at 5.30 p.m.*



PUBLISHED BY THE INSTITUTION  
STOREY'S GATE, ST. JAMES'S PARK, LONDON, S.W.1

# The Institution of Mechanical Engineers



## EROSION DUE TO INCIPIENT CAVITATION

By W. T. Bottomley

*Written discussion on this paper is invited.  
Communications should reach the Secretary  
by 1st December 1947*

### CONTENTS

	Page
INTRODUCTION . . . . .	2
A SURVEY OF EXPERIMENTAL WORK . . . . .	2
DEDUCTIONS FROM THE NOZZLE EXPERIMENTS . . . . .	7
THE THERMODYNAMICS OF THE FORMATION OF VAPOUR BUBBLES UNDER CONDITIONS OF SUPERSATURATION . . . . .	7
APPLICATION TO THE FORMATION AND COLLAPSE OF CAPILLARY AIR BUBBLES . . . . .	9
COLLAPSE OF CAPILLARY AIR BUBBLES . . . . .	10
CAVITATION TUNNELS . . . . .	11
ACKNOWLEDGEMENTS . . . . .	11
APPENDIX I: FURTHER EVIDENCE THAT WATER AT SATURA- TION TEMPERATURE CONTAINS ITS OWN VOLUME OF VAPOUR, AND LATENT HEAT, IN SOLUTION . . . . .	11
APPENDIX II: REFERENCES . . . . .	12

PUBLISHED BY THE INSTITUTION  
STOREY'S GATE, ST. JAMES'S PARK, LONDON, S.W.1

# The Institution of Mechanical Engineers

Incorporating The Institution of Automobile Engineers

## PISTON RING MOVEMENT DURING BLOW-BY IN HIGH-SPEED PETROL ENGINES

By P. de K. Dykes, M.A., Ph.D. A.M.I.Mech.E.

*Paper intended to be presented at a General Meeting of the Automobile Division, jointly with the Internal Combustion Engine Group of the Institution on Tuesday, 6th April 1948, at 6 p.m. If written communications on this paper are sent, they should reach the Secretary by 30th April 1948.*

### CONTENTS

	Page
INTRODUCTION . . . . .	3
DESCRIPTION OF ENGINE . . . . .	3
ELECTRICAL CONNEXIONS WITH PISTON . . . . .	3
METHOD OF MEASURING AXIAL RING MOVEMENT . . . . .	4
RECORDS OF AXIAL RING MOVEMENT . . . . .	5
METHOD OF DETECTING RADIAL RING COLLAPSE . . . . .	6
RECORDS OF RADIAL RING COLLAPSE . . . . .	7
STATIC TEST . . . . .	7
RESULTS OF STATIC TEST . . . . .	7
EXPLANATION OF EXCESSIVE BLOW-BY . . . . .	8
RING DESIGNS EVOLVED . . . . .	8
ACKNOWLEDGEMENTS . . . . .	9
APPENDIX I : PRELIMINARY EXPERIMENTS . . . . .	9
APPENDIX II : REFERENCES . . . . .	10

PUBLISHED BY THE INSTITUTION

STOREY'S GATE, ST. JAMES'S PARK, LONDON, S.W.1

*No publication whatsoever of this paper, or any portion thereof, may be made until after 6th April 1948.*

X-131-15-3

# The Institution of Mechanical Engineers

Incorporating The Institution of Automobile Engineers

## THE ORGANIZATION OF LARGE-SCALE VEHICLE OVERHAUL AND REPAIR

By E. C. Ottaway, M.I.Mech.E.

*Paper intended to be presented at a General Meeting of the Automobile Division of the Institution on Tuesday, 2nd March 1948, at 6 p.m., and at certain Centres of the Division as announced in the Journal. If written communications on this paper are sent, they should reach the Secretary by 31st March 1948.*

### CONTENTS

	PAGE		PAGE
Introduction . . . . .	I	Process Planning . . . . .	5
The Background and Objectives . . . . .	I	The Organization of Stock Control and Material Flow . . . . .	6
Design for Operation and Maintenance . . . . .	I	The Programme of Work . . . . .	6
Standardization and Interchangeability . . . . .	2	The Long Range Forecast of Requirements . . . . .	7
The Human Factor . . . . .	2	Control of Material Flow . . . . .	8
The Functional Organization . . . . .	3	Issue and Appropriation of Material . . . . .	8
Design and Development Department . . . . .	3	The Organization of Man Power and the Application of . . . . .	
Production Control Department . . . . .	4	Incentive Working . . . . .	9
Planning and Methods Department . . . . .	4	Factory Control Statistics . . . . .	10
Production Department . . . . .	4	Cost Statistics . . . . .	10
Inspection Department . . . . .	4	"Standard Cost" . . . . .	11
The Physical Processes of Repair . . . . .	4	Actual Cost . . . . .	11
The Classification and Identification of Output and Stock . . . . .	5	Acknowledgements . . . . .	11

PUBLISHED BY THE INSTITUTION  
STOREY'S GATE, ST. JAMES'S PARK, LONDON, S.W.1

# The Institution of Mechanical Engineers



## MECHANICAL ENGINEERING ASPECTS OF NAVAL MINING

By E. C. Wadlow, B.Sc., Ph.D., M.I.Mech.E.

*Paper intended to be read at an Extra General Meeting of the  
Institution, in London, on Friday, 6th February 1948, at 5.30 p.m.  
Written communications should reach the Secretary not later  
than 30th April 1948.*

### CONTENTS

	Page
Historical . . . . .	2
Types of Mine . . . . .	2
Methods of Laying Mines . . . . .	3
Depth-taking Arrangements . . . . .	5
Conditions of Service . . . . .	7
Safety Requirements . . . . .	7
Firing Principles . . . . .	9
Design Details . . . . .	10
Conclusion . . . . .	12
Acknowledgements . . . . .	12

PUBLISHED BY THE INSTITUTION  
STOREY'S GATE, ST. JAMES'S PARK, LONDON, S.W.1

*No publication whatsoever of this paper, or any portion thereof, may  
be made until after 6th February 1948.*



X-TJ 1  
.I 5



Advance copy subject to revision

X-TJ 1.I 5 #6

# The Institution of Mechanical Engineers

## SOME MECHANICAL FEATURES IN ANTI-SUBMARINE WEAPONS

By J. M. Kirkby, M.A., A.M.I.Mech.E.

*Paper intended to be read at an Extra General Meeting of the Institution in London, on Friday, 6th February 1948, at 5.30 p.m. Written communications should reach the Secretary not later than 30th April 1948.*

### CONTENTS

	Page
DESCRIPTION OF WEAPONS AND THEIR APPLICATION . . . . .	3
WEAPON DISCHARGE GEAR . . . . .	6
EFFECT OF EXPLOSIONS . . . . .	8
SAFETY REQUIREMENTS . . . . .	11
DEPTH CHARGES FROM AIRCRAFT . . . . .	12
ACKNOWLEDGEMENT . . . . .	14

PUBLISHED BY THE INSTITUTION  
STOREY'S GATE, ST. JAMES'S PARK, LONDON, S.W.1

*No publication whatsoever of this paper, or any portion thereof,  
may be made until after 6th February 1948.*

X-TJ 1  
I5

Advance copy subject to revision

X-TJ 2.I5#7

# The Institution of Mechanical Engineers

## WAVE ACTION FOLLOWING SUDDEN RELEASE OF COMPRESSED GAS FROM A CYLINDER

By F. K. Bannister, Ph.D., and G. F. Mucklow, D.Sc., M.I.Mech.E.

*Paper intended to be read at an Extra General Meeting of the  
Institution in London, on Friday, 5th March 1948, at 5.30 p.m.  
If written communications are sent they should reach the Secretary  
not later than 30th May 1948.*

### CONTENTS

	Page
INTRODUCTION . . . . .	2
THEORETICAL CONSIDERATIONS . . . . .	3
EXPERIMENTAL RESULTS . . . . .	13
SUMMARY OF CONCLUSIONS . . . . .	18
APPENDIX I: WAVE REFLECTION . . . . .	19
APPENDIX II: REFLECTION AT PLANE OF TEMPERATURE DISCONTINUITY . . . . .	20

PUBLISHED BY THE INSTITUTION  
STOREY'S GATE, ST. JAMES'S PARK, LONDON, S.W.1

*No publication whatsoever of this paper, or any portion thereof,  
may be made until after 5th March 1948.*

#8

Or Nat 923  
INR



INSTITUT NATIONAL ROUMAIN  
POUR  
L'ÉTUDE DE L'AMÉNAGEMENT ET DE L'UTILISATION DES  
SOURCES D'ÉNERGIE

COMPTE RENDU  
SUR  
L'ACTIVITÉ DE L'INSTITUT  
(1926 — 1932)

Rp. 3

BUCAREST  
1932

Or Nat  
923  
INR